

**A LONG TERM CO₂ EMISSION REDUCTION PLAN
FOR
METROPOLITAN DADE COUNTY**

**PROGRESS REPORT
JANUARY 1996**

**SUBMITTED BY:
DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT**



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METRO-DADE'S CO₂ REDUCTION PLAN

On December 14, 1993, Metro-Dade's Board of County Commissioners approved a resolution recognizing the threat of global warming due to climate change and accepted a plan to reduce carbon dioxide emissions (CO₂) entitled "A Long Term CO₂ Emission Reduction Plan for Metropolitan Dade County." The plan was developed as part of an international effort to reduce CO₂ emissions through the implementation of local actions and encouragement of needed state and federal actions. The project is administered by the Department of Environmental Resources Management.

Metro-Dade's plan targets the reduction of CO₂ emissions by 20% below 1988 levels over a twelve-year period through strong energy conservation measures and other energy alternatives. The development of this plan was guided by a broad-based steering committee, chaired by County Clerk Harvey Ruvin.

Project analysis showed that in 1988, Dade County CO₂ emissions totaled over 23 million tons. These emissions came from the combustion of fossil fuels. The largest sources of emissions came equally from transportation (45%) and electricity (45%). Dade County's plan includes measures in the following sectors: transportation, electrical production/use, solid waste management and land use patterns.

BACKGROUND

There is a consensus that CO₂ concentrations are increasing and that such an increased concentration of "greenhouse" gas poses a potential threat to climatic stability. It is estimated that temperatures may rise several degrees higher and at a faster rate than has been experienced within the last million years. Scientific members of the United Nations Intergovernmental Panel on Climate Change (IPCC) concluded that burning fossil fuels and deforestation, both human activities, are substantially increasing the atmospheric concentration of greenhouse gases. Dade County, a low lying coastal community, would be particularly vulnerable to the potential impacts of climate change such as sea-level rise resulting from atmospheric global warming.

PLAN UPDATE

Most of the plan's thirty-four recommendations fall under the jurisdiction of eight county departments including DERM. This annual report reviews the progress made in terms of implementing the plan's recommendations during the second year. It is important to remember that although a number of measures can be directly implemented by Metro-Dade, there are a number of recommendations that fall under the jurisdiction of either the state or federal government or involve changing the attitudes and behaviors of individuals; therefore, it will be difficult to guarantee the full implementation of those measures. Also, many recommendations in this plan are concepts or measures that will evolve and improve continuously in order to meet the needs of Dade's growing population. For example, the recommendation to increase traffic demand management programs will not have a final date of completion because it is a continuing effort. Additionally, recommendations that were not considered cost effective will become more accessible as new technologies are developed.

This particular report does not attempt to quantify CO₂ levels for those measures that have been implemented. CO₂ emission levels will be calculated by reviewing data on energy consumption, fuel type, population, vehicle miles traveled, and type of activity. The quantification of greenhouse gas reduction for those measures implemented will be completed every five years.

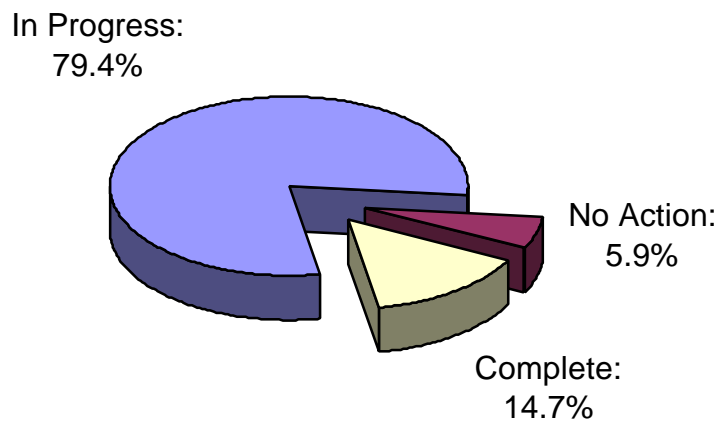
NEW OPPORTUNITIES

Since the preparation of the original Long Term CO₂ Emission Reduction Plan for Metropolitan Dade County, new opportunities for the reduction of CO₂ became available. One of them was the creation of Team Metro which was established to bring government closer to citizens in their neighborhoods. This concept coincides with our CO₂ reduction strategy since it reduces the amount of driving and all of the pollution associated with it. DERM and other County Departments will be providing educational materials and certain services such as applications for permits at the several Team Metro sites. In order to provide better services, DERM has been training Team Metro staff. The training will include a description of DERM's complaint system and plan review requirements for businesses and residential facilities.

Additionally there are Federal initiatives that bring new opportunities for reduction of greenhouse gas emissions. This year Dade County was selected to participate in the "Climate Wise for Local Governments" pilot project. This project is divided into two components: 1) Reduction of Greenhouse Gases from County Industrial Operations, which entails the calculation of the energy savings, greenhouse gas reduction, cost savings from the following County operations: expansion of Downtown cooling loop, construction of Civic Center cooling loop, recovery and utilizing landfill methane, motor and pump efficiency at the Water and Sewer

Department and vehicle replacement for county fleets. Additionally, DERM will assist the Metropolitan Planning Organization in marketing the traffic demand management programs. 2) Recruitment of companies to participate in the Climate Wise program. This is a voluntary program that promotes reduction of greenhouse gas emissions through energy efficiency and pollution prevention.

Status of the Plan's Recommendations January, 1996



Activity	Year 94	Year 95
Measures Completed	4	5
Measures in Progress	22	27
No Action	8	2
Dropped	1	

The following list of recommendations has been organized according to departmental authority over the plan's recommended actions. Next to the action is the corresponding sector, section and number of the action as it is listed in the December 1993, approved plan.

ENVIRONMENTAL RESOURCES MANAGEMENT

MEASURES COMPLETED

- 1) Promote an increase in national gas mileage standards to 45 miles per gallon**
(Transportation, Section D, #4)

Resolution No. R-554-94, from the Board of County Commissioners urging Congress and the President to enact higher Corporate Average Fuel Economy (CAFE) standards to 45 miles per gallon was approved on April 19, 1994. A copy of the resolution with a cover letter from Harvey Ruvin, Clerk of the Courts and Steering Committee Chairman was sent to President Clinton, Florida's Congressional Delegation and others. Congress did not act on increasing CAFE standards this past session. Because this cost-effective measure offers the greatest opportunity for reducing CO₂ emissions, the effort needs to continue.

- 2) Develop and market a Miami Herald energy guide targeting the homeowner**
(Electrical, Section B, #2)

Following several planning meetings with The Miami Herald and others, the Herald published a "How To" energy efficiency guide covering appliances, landscaping, roofing and windows, and many other energy efficient options for customers as well as utility programs to assist customers. Approximately 440,000 copies were distributed countywide. Shortly after the floods in the mid-west, DERM was contacted by the US Department of Energy who wanted to duplicate our "How To" guide in order to promote energy-efficiency in the region's rebuilding effort.

MEASURES IN PROGRESS

- 1) Reduce annual electricity consumption by 5,359 kWh in 35,000 rebuilt homes in South Dade through promotion of energy efficient measures**
(Electrical, Section B, #1)

Status:

This recommendation has evolved into the development of a model sustainable community called Jordan Commons, which will be built by Homestead Habitat for Humanity. They are proposing to develop a 40-acre site into a 200 home community with a number of centrally located community buildings and parks. A package of energy-efficient, water conservation and renewable measures along with ecological landscaping and traditional neighborhood principles will be incorporated into the design of the houses and community. A 40% to 60% energy savings is expected.

DERM received a grant from the Urban Consortium Energy Task Force to coordinate and staff the project steering committee responsible for conceptually developing the community. Through the grant, DERM also coordinated a Predevelopment Planning Conference and an Energy Design Conference. DERM applied for and received a grant for \$200,000 from the Florida Energy Office to purchase solar water heaters for the community's houses and photovoltaic cells for the street lighting. DERM solicited the assistance from the Florida Solar Energy Center to monitor and verify the project's energy savings. In order to further guarantee the energy savings, DERM received a second grant from the Urban Consortium Energy Task Force to develop a comprehensive environmental education program for the 800 plus residents of Jordan Commons. As part of this program, homeowners will be provided with a homeowners manual, educational videotapes, children's activity books and a curriculum for children and adults that will teach sustainable practices including the operation and maintenance of their homes.

Construction has now started, and buildout should occur over the next three to four years.

2) Integrate "Cool Communities" with community-wide tree planting program
(Electrical, Section D, #1)

Status:

The Local Advisory Committee is Educating Residents of 5 Demonstration Neighborhoods

1. Increase Tree Canopy Site in 96 homes in Richmond Heights, where the tree cover was devastated by Hurricane Andrew in 1992. Trained Block Captains are enrolling residents to receive 3 strategically placed trees to reduce their electricity consumption.
2. Existing Tree Canopy Site in a neighborhood of 72 homes in South Miami, chosen to demonstrate the energy savings of an extensive tree canopy. Residents have helped conduct a tree survey and they will be shown where additional trees could further reduce their electric bills.
3. Lighten Roofs Site: In downtown South Miami, a citizen advisory group is coordinating a "Lighten Up" contest among building owners to compete for Dade County-approved white roof coating materials.
4. Existing White Roof Site: Weitzer Hammocks is a 232 home development with all white roofs, amidst a sea of red roofs in West Kendall. Temperature sensors will compare Weitzer Hammocks with other neighborhoods.
5. New Construction: Build With White Roofs and Strategically Plant Trees: Homestead Habitat for Humanity's Jordan Commons Ecological Community in South Dade will become home to low-income families. Energy conservation and ecological landscaping are integral to the community's design.

Cool Communities has raised \$225,000 in external grants and private donations to implement the project.

The full-time coordinator is administering grants for street trees in Richmond Heights (\$70,000), Teacher Training Workshop (\$5,000), Vocational Training (\$5,000), Public Service Announcements (\$20,000), a Citizen Forestry Workshop (\$20,000), and a Cool Communities Public Education Grant, (\$55,000). In private donations, \$70,000 has been raised with corporate sponsorships and two Global Releaf Walks for Trees. In addition, DERM was awarded a \$20,000 grant to perform an Urban Canopy Ecological Analysis as part of the Cool Communities project.

Public Service Commission approval has been accomplished

The research and conservation goals program of Florida Power and Light, which included expenditures for monitoring the effectiveness of the Cool Communities project, was approved by the Florida Public Service Commission in November 1995.

The Cool Communities project will launch on National Arbor Day, April 26, 1996.

The baseline study of the energy conserving value of trees will be released and community organizations and volunteers will begin planting strategic trees in Richmond Heights and at Jordan Commons on four consecutive Saturdays of the Cool Communities Plant-A-thon.

WFOR-TV will broadcast the temperature differences between the Cool Communities sites.

Cool Communities Strategies Were Incorporated in the Landscape Ordinance

In the ordinance passed by the Commission on December 5, 1995, the shading of external air-conditioning units and the placement of trees near structures is estimated to save homeowners in 9,000 new housing starts approximately \$8,000,000 in electricity costs for air-conditioning in the first five years of implementation (**this is an equivalent of approximately 66.6 tons of reduction in CO₂ emissions**)

The Public Works Department has planted a total of 27,600 trees in the public rights of way. A total of 25,000 were planted during the Summit of the Americas. Since then, an additional 2,600 trees have been planted. Landscaping will continue as part of the Transportation Improvement Plan (TIP). (**CO₂ emission reductions are estimated to be 717,000 to 1,656,000 lb. per year depending on the size and age of the tree**)

3) Promote the Energy Conservation & Assistance Program (Electrical, Section E, #3)

Status:

DERM has been offered a grant to assist in financing the reduction of greenhouse gas emissions from the County's industrial type operations and from private companies. As part of this grant DERM will recruit private companies to the Climate Wise program, which is

an initiative of the Environmental Protection Agency (EPA) and the Department of Energy (DOE).

Climate Wise is a voluntary program that promotes the reduction of greenhouse gas emissions through pollution prevention and energy conservation. DERM will work with the Small Business Development Center – Energy Assistance Program and Florida Power and Light, and will offer technical assistance to companies that sign up to Climate Wise in the areas of pollution prevention and energy efficiency.

4) Increase public participation in FPL's Demand Side Management Programs
(Electrical, Section E, #1)

The ongoing reorganization of our planning and building review functions offers an opportunity to integrate these programs more directly into the process.

NO ACTION

1) Reinstate the renewable energy source exemption
(Electrical, Section C, #2)

Florida House Bill 1907 and Senate Bill 1970 dies at adjournment of the 1994 Legislative Session.

SOLID WASTE MANAGEMENT

MEASURES IN PROGRESS

1) Continue to promote and implement the following recycling programs:

- **Single-family residential**
- **Multi-family residential**
- **Yard waste**
- **Commercial**
- **Disposal facilities**
- **Metro-Dade government facilities**
(Solid Waste, Section A, #1)

Status:

As a result of the current recycling efforts, Dade County is recycling 31% of the waste stream.

Next Step:

- **Single-family residential:** In 1996, the residential curbside recycling program will be expanded to include aseptic containers (juice boxes, milk and juice cartons), corrugated cardboard, and mixed waste paper (white ledger, colored ledger, computer paper, magazines, and junk mail).

- **Multi-family residential/commercial:** In 1996, continue multi-family/commercial recycling program including monitoring over 32,000 waste locations for recycling compliance, providing information and technical assistance, and enforcement.
- **Yard waste:** In 1996, process and distribute up to 20,000 tons of mulch to residents of unincorporated Dade County, pending the lifting of the ban imposed by the Florida Dept. of Agriculture due to the recent Citrus Canker outbreak.
- **Disposal facilities:** In 1996, continue separating metals from garbage delivered to the Resources Recovery Facility. Continue development of trash-to-fuel program for implementation in 1998.
- **Metro-Dade government facilities:** In 1996, continue to promote recycling in Metro-Dade government facilities.

2) Recover, flare and/or use the methane gas generated from landfilling to generate electricity for the South District Wastewater Treatment Facility.

(Solid Waste, Section A, #2)

Status:

The economic analysis of landfill gas recovery was completed in June 1995. The RFP to design, build, finance and operate the system will be issued the First Quarter of 1996. Current plans are for the gas to be mined, upgraded and marketed.

3) Implement community-wide reduction programs

(Solid Waste, Section A, #1)

Status:

The Department of Solid Waste Management is continuing to educate and promote waste reduction measures. 1995 activities included:

- Offered community outreach through participation on television programs (WLRN)
- Prepared a slide show for community presentations and events
- Provided waste reduction brochures at community events and distributed them by mail. Brochures outline ways to “shop green” and how to compost waste at home.
- Provided information on solid waste management practices including recycling, source reduction, and hazardous materials disposal, to be included in the Jordan Commons Homeowner’s Manual.

During 1996 the Department of Solid Waste Management will continue the above-mentioned educational program.

DEPARTMENT OF PLANNING, DEVELOPMENT AND REGULATION

MEASURES IN PROGRESS

- 1) Review and amend regulations to encourage the implementation of transit and pedestrian oriented development (TOD) principles in new developments.**
(Land Use, Section A, #1)

Status:

The Planning Department filed an application to amend the Comprehensive Development Master Plan (CDMP) through a state mandated Evaluation Appraisal Report (EAR) process. The recommendations contained in the EAR report will form the basis for the filing of CDMP amendment applications. The EAR was adopted by the Board of County Commissioners and submitted to the Department of Community Affairs (DCA) on November 1, 1995. CDMP amendment applications are now being drafted.

Among the recommendations adopted in the EAR are the following:

1. Add policies to establish maximum acreage of any single development devoted to a particular type of housing;
2. Add policies to enhance the guidelines for Urban Form on the basis of the Urban Design submitted to the Board of County Commissioners;
3. Amend the interpretive text to allow home occupations;
4. Add policies to create a new business node district which serves immediate neighborhood needs and allow neighborhood business development at intersections of two or more major, minor arterial or collector roadways; and
5. Revise Land Use Element policies and interpretative text to promote inclusion of convenience business centers in dispersed pattern through industrial areas

The Planning Department prepared an Urban Design Report that was submitted to the Board of County Commissioners on July 24, 1995. This report recommends design concepts to promote transit and pedestrian oriented development principles.

The Planning Department is currently participating in a study entitled "South Dade US 1 Corridor Comprehensive Planning and Design Strategy". This study is investigating means to promote mixed developments at important nodes along the new busway under construction along US 1 at this time.

The EAR based amendments will be adopted by the Board of County Commissioners as new policies in the CDMP.

2) Encourage infill development by requiring utilization of TOD principles within activity centers and along major corridors.

(Land Use, Section A, #2)

Status:

The Board of County Commissioners adopted an amendment to the CDMP in November 1994 to provide guidelines for urban form and design of activity centers embodying transit oriented development principles. Additional measures have been proposed in the EAR recommendations. Refer to response No. 1, above, for the EAR related Plan amendment schedule.

Planning Department has also responded to the Board of County Commissioners and submitted an Urban Design Report on July 24, 1995.

The Board of County Commissioners will conduct a public hearing and take action on the proposed EAR based CDMP amendments.

3) Continue to promote the evolution of sub-centered urban form, comprised of major, intermediate and local activity centers; activity corridors; enterprise/employment centers and transit network. In appropriate locations in intervening areas, promote applicable TOD principles and the balanced provision of convenience retail, personal services and various types of residences.

(Land Use, Section A, #3)

Status:

1. The Board of County Commissioners adopted an amendment to the CDMP in November 1994 to provide guidelines for urban form and design of activity centers embodying TOD principles. Additional measures have been proposed in the EAR recommendations. Refer to response No.1, above for the EAR related plan amendment schedule.

2. The Planning Department submitted an urban design report that proposes additional amendments to the CDMP and changes to the County Code. The report was submitted to the Board of County Commissioners in July 1995.

3. Additional Proposals will be initiated during the CDMP update in 1996 as part of amendments to the CDMP based on the EAR. (Please see response No.1 above)

4. Planning Department is participating in a study entitled "South Dade US 1 Corridor Comprehensive Planning and Design Strategy". This study is investigating means to promote mixed used transit oriented developments at important nodes along the new Busway under construction along US 1 at this time.

4) Encourage provision of civic buildings within urban neighborhoods through site planning and capital improvements programming

(Land Use, Section A, #4)

Status:

Please see response 1 and 3 above.

The next step is the adoption of EAR based amendments to the CDMP.

5) Revise Dade County's landscape code to require strategic tree planting, street trees and parking lot trees.

(Electrical, Section D, #2)

Status:

On December 5, 1995, the Board Adopted Ordinance No. 95-222 revising the County's landscaping regulations which govern incorporated and unincorporated Dade County. These regulations include energy saving tree-planting practices. The ordinance requires planting trees a minimum of 10 feet in height within 25 feet of the building structure for the purpose of shading. The ordinance also requires trees in parking lots and street trees. Ground air conditioning units would also have to be shaded by trees or shrubs. Public workshops will be scheduled to obtain feedback from community groups.

TRANSIT AGENCY

MEASURES COMPLETED

1) Complete expansion of the Metromover rail system to Brickell Avenue and Omni Center

(Transportation, Section A, #1)

Status:

Project completed in May 25, 1994. Current daily ridership has been estimated at 21,000 daily.

MEASURES IN PROGRESS

1) Extent Transit

(Transportation, Section A, #2)

Status:

On December 9, 1993, the MPO adopted a formal resolution which approved the major transit elements of the Long Range Transportation Plan as a Program of Interrelated Projects. This action was also adopted by the Board of County Commissioners on December 14, 1993. If the federal funding needed can be obtained on a timely basis, most of the component projects will be fully implemented by the year 2010. The overall "Program of Interrelated Project" is estimated at \$3.8 billion over a twenty-year period, with 25% coming from Federal Transit Administration (FTA) sources. For the "North Corridor" the total project cost is \$574.2 million, of which 70% is programmed to come from FTA funds. The project is expected to be completed by 2002. For the "Palmetto Extension", the total project cost is \$76.6 million, of which 32.6% will come from FTA funds.

Projects currently under preliminary design include:

North Corridor extension: The alternative analysis is 90% complete. Projection for completion is approximately March 1996. An Environmental Impact Statement will be drafted pending approval of analysis. Once Alternative Analysis is approved the EIS (Environmental Impact Statement) work will commence.

Metrorail extension to the Palmetto Expressway: Beginning design January 1996, pending BCC approval. The next step is to begin construction June 1998, to be completed by December 1999.

Cutler Ridge Mall bus way project: As of December 1995, Metrorail Dadeland South Station modifications are 60% complete. The Bus Way work is 90% complete, and Bus Shelters and Landscaping are 5% complete.

GENERAL SERVICES ADMINISTRATION

MEASURES COMPLETED

1) Institute waste reduction purchasing practices in Metro-Dade (Solid Waste, Section C, #2)

Status:

Metro Dade County restructured the County Internal Recycling Program for the Pick-Up of paper, plastic and glass, to a revenue base. This change, over time, will reduce our trash and garbage pick-up costs by more than 60%. Additionally, the program will provide a funding source for county and community environmental programs and education.

In Fiscal Year 1995, based on pick-up of 2,088 tons of material collected from county occupied facilities, tipping fees at \$27 per ton and hauling fees averaging \$59 per ton: the county could have paid \$179,400 to dispose of the tonnage, with no revenue collected.

Under the new structure, the county saved \$123,120 in tipping fees, and \$56,280 in hauling fees, and earned \$65,628 in revenue, totaling a benefit to the county of \$255,028.

The County has also put into place a revenue based program for the collection of wood pallets, which will save the County in excess of \$100,000 in 1996.

County departments continue to recycle fluorescent bulbs and ballasts and to replace concrete and wooden products, such as park benches, picnic tables and bumper stops, with recycled plastic products.

The next steps are:

1. Implementation of a revenue based or “no cost to the county” contract for the pick-up of commingled recyclables for Housing and Urban Development (HUD) residential units, to bring them into compliance.
2. Implementation of Battery Recycling program for county employees
3. Reduction of “virgin” paper products and office supplies available through Materials Management, to meet mandated compliance with federal standards for waste reduction

MEASURES IN PROGRESS

1) Utilize more fuel efficient cars in the Metro-Dade fleet

(Transportation, Section D, #1)

Status:

GSA purchased 207 Chevrolet Cavaliers with a combined fuel economy of 26 mpg. GSA replaced 217 full size cars with the Ford Taurus mid-sized cars. **(CO₂ emission reductions are estimated to be 167,738 lb. of CO₂ per year)**

2) Develop a team of local public/private representatives to identify and promote the most practical and cost-effective alternative fueled vehicles

(Transportation, Section D, #3)

Status:

GSA is working with the Aviation Department to construct a Compressed Natural Gas (CNG) fuel site at the Miami International Airport which will service all of Dade County, State of Florida and Federal vehicles requiring CNG. The fuel site will open in early spring 1996. GSA purchased and modified thirty 94 Chevrolet Caprice to run on CNG and gasoline which are operated by Metro-Dade Police Department at the Miami International Airport.

3) Develop a public education and awareness campaign to limit idling of automobiles and trucks

(Transportation, Section D, #2)

Status:

The County’s Environmental Task Force has developed a subcommittee to address this issue. The County Green Fleets Committee chaired by GSA’s Fleet Management will develop such an awareness campaign for County drivers.

GENERAL SERVICES ADMINISTRATION

Previously required of
DEPARTMENT OF DEVELOPMENT AND FACILITIES MANAGEMENT

MEASURES IN PROGRESS

- 1) Initiate the “Green Lights” programs and integrate with other County building retrofits for a 20% increase in energy efficiency.**

(Electrical, Section A, #1)

Status:

GSA is replacing incandescent lamps in various ceiling areas and exit signs. Working in five major buildings at an anticipated annual energy savings of 1,458,754 kWh (1,240 tons of CO₂ savings) and an annual cost savings to the County of \$75,348.41. GSA is currently working with Florida Power and Light to conduct a survey of buildings and retrofit all needed lighting equipment. Retrofit construction costs will be paid from electric bill savings. GSA will work with FP&L to perform survey of large buildings and complexes. Continue over the following months to install compact fluorescent lamps in major buildings. The next step is to start a retrofit program in ceiling lighting using T-8 tubes and electronic ballasts.

- 2) Investigate cost effective energy efficient HVAC systems for Metro-Dade facilities**

(Electrical, Section C, #1)

Status:

The County has a Master Lease program to replace old non-efficient chillers with more cost effective and energy-efficient chillers. Three centrifugal chillers have been replaced with screw type chillers in the South Dade Government Center, the Caleb Center and the Data Center (ITD). The goal was to replace chillers over 100 tons that operated at 1 to 1.2 kWh per ton of refrigeration with chillers that operated at .6 kWh per ton of refrigeration. Due to new CFC 11 and CDC 12 phase-out regulations, these old refrigerants were replaced with HCF 123 and HFC 134. However, the new refrigerants cause a 15% loss in cooling capability which reduces the efficiency by the same percentage. GSA now has to purchase a 115-ton chiller to do the job of a 100-ton chiller. In the design stage is a high efficiency low energy district cooling plant for the Civic Center area.

- 3) If feasible, purchase the combined cycle cogeneration plant and wheel the current excess capacity of 82,000,000 kWh/yr. to County owned facilities and promote use of cogeneration for other appropriate commercial activities.**

(Electrical, Section A, #2)

Status:

Metro-Dade lost its bid to become a municipal utility which would have allowed them to wheel the excess capacity from the cogeneration plant to other County owned facilities. It is currently pending New Energy Law to allow wheeling of electricity to large commercial users. The next step is to establish key load centers as shown in Weil and Howe, Inc. Feasibility Study dated October 21, 1994.

- 4) **Adequately staff the utility management division within Metro-Dade's General Services Administration in order to investigate various rate structures that encourage and reward utilities for energy conservation. Work with FP&L on New Federal Energy Rates.**

(Electrical, Section E, #2)

Status:

The ongoing reorganization of support services under GSA provides an opportunity to evaluate energy policy issues and the potential for energy and cost savings that may be possible as energy supply markets are broadened.

PUBLIC WORKS

MEASURES IN PROGRESS

- 1) **Shift to photovoltaic street lighting**

(Electrical, Section C, #3)

Status:

Public Works investigated the merits of solar power (photovoltaic) street lighting with representatives of the industry. They concluded that solar power in its present form is not cost effective and does not provide the level of illumination required for the arterial roadway lighting system.

Although not included in the Urban CO₂ initiative, Metro Dade Parks & Recreation Department is contributing to the County's CO₂ reduction plan. Recently, Briar Bay Park was chosen as a test site for a Photovoltaic (PV) outdoor lighting system. The main focus of this test was to provide nighttime illumination for security purposes. One of the more attractive features of the PV lights included the ability to provide lighting in remote locations where the normal electrical infrastructure was absent and would be costly to provide.

The fifteen fixtures currently in use provide ample light for joggers and other park patrons. Spaced sixty feet apart, the eighteen-foot tall lamps provide five foot-candles of illumination directly below the source, and one foot-candle between each. Because the PV lamps use compact fluorescent bulbs in lieu of the traditional sodium lamps, the light quality (visible spectrum) is markedly improved. Finally, because the PV lamps generate their own power, they free up demand for other uses and prevent the emission of an estimated 1000 pounds of CO₂ per fixture annually (based on an average savings of 1000 kWh per year).

The next step is to explore the feasibility of a collaborative effort between DERM and MD Parks and Recreation to identify other parks that would benefit most from additional PV lighting and design and implement a program for installing and monitoring both new lighting and retrofits.

METROPOLITAN PLANNING ORGANIZATION

MEASURES IN PROGRESS

- 1) Construct all road improvements listed in the Long Range Transportation Plan (2010) that are consistent with the other transportation and land use measures in this plan.**
(Transportation, Section A, #3)

Status:

As of November 1995, there were a total of 225 highway-related projects in the adopted Long Range Transportation Plan (LRTP). Since the Plan was first adopted in November of 1990, over fifty (50) of the projects have been completed. Sample capacity projects include:

- The US-1/South Dixie Highway Busway, extending from Dadeland South Metrorail Station to Cutler Ridge. Construction on this project began in the summer of 1994 and expected to be in operation starting in May 1996.
- The interchange of the Homestead Extension of Florida's Turnpike (HEFT) at SW 120th Street was completed in 1993.
- The six-lane of Tamiami Trail from SR-826 to SW 127th Avenue was completed.
- The HEFT was widened to 8 lanes and interchanges were placed at NW 41st Street and SW 120th Street, and an interchange at NW 106th Street was under construction as of December 1995.
- Interstate 95 underwent significant reconstruction between NE 54th Street and NW 186th Street, including a High Occupancy Vehicle (HOV) flyover at Golden Glades interchange.
- Biscayne Boulevard underwent significant reconstruction and six-laning from NE 123rd Street to NE 135th Street, and was under construction north to NE 163rd Street as of December 1995.

During 1995, several arterial roadways were improved. Examples include:

- ❑ NW 79 Avenue: from NW 25 Street to NW 58 Street
- ❑ NW 81 Avenue: from NW 122 Street to NW 138 Street
- ❑ SW 117 Avenue: from SW 56 Street to SW 72 Street
- ❑ NW 151 Street: from US-1 to Main Road

On the 7th of December 1995, the update to the LRPT (to the year 2015) was adopted by the Governing Board of the MPO.

The twenty-year transportation “Needs” proposals identify nearly one hundred major capacity improvements with a price tag of approximately \$6.1 billion. Public transportation and ridesharing are emphasized in the projects listed. Identified transit needs call for provision of over 60 miles of exclusive right-of-way priority service along six major travel corridors. Also proposed are approximately 40 miles of High Occupancy Vehicle lanes (HOV) along expressways. Incorporation of the latest electronics technology (Intelligent Transportation System) is also proposed for several major projects as another means of easing congested traffic conditions. Proposals for new highways are relatively insignificant when compared to other types of projects, reflecting the fact that the urban area has matured and that the necessary space to build new major highways is either no longer available or extremely costly. The Plan includes, however, many proposals to widen existing primary and arterial roads that carry heavy loads of traffic between suburbs and to and from city center.

2) Increase traffic demand management programs

(Transportation, Section B, #1)

Status:

The “Transportation Demand Management and Mitigation Study” was conducted in 1993. One of the recommendations implemented as a result of study was the formation of the Congestion Management Coordinating Committee with representatives from FDOT, Public Works, Planning, DIC, MDTA, DERM, CTAC and the MPO. Also two Transportation Management Associations (TMA) were established at the Civic Center and South Beach. The goal of the TMA’s is to find workable solutions to transportation problems. The MPO has provided technical support by developing two planning studies for these TMA’s:

- a. A Pedestrian Amenities and Safety Study, which focuses and recommended actions on pedestrian amenities and safety concerns within the boundaries of CCTMO.
- b. A Bicycle and Pedestrian Study, which focuses on recreational bicycle routes within the boundaries of the MBTMA.

Additionally, the MPO will support a demographic study for the CCTMO and the MBTMA is considering a study to evaluate the proposed electric Tram for the Miami Beach area. The MPO will be working with the MBTMA in the development and implementation of the Electric Tram.

In coordination with FDOT, the MPO is developing a Vehicle Leasing Program. The purpose of this program is to provide equipment to TMAs and selected private employers for implementing vanpool programs. A pilot project is estimated to be in operation by summer 1996. An RFP Final Draft will be available the first week of February for evaluation and review of other departments within the county and FDOT. A completely operational project will be incorporated in the 1995-96 FDOT Work Program.

MPO is also considering a road pricing strategy. They are now reviewing a draft report with recommendations to implement a moderate package of pricing strategies.

In Dade County, the ridesharing program is managed by Gold Coast Commuter Services. This is a regional service that includes Broward and West Palm Beach Counties. The GCCS provides matching services for carpooling, vanpooling and other TDM programs. Also MPO is conducting a Congestion Management System Study scheduled for completion by June 1995.

3) Expand Bikes-on-Train program to include counter-flow and first hour service
(Transportation, Section C, #3)

Status:

Bicycles are now allowed on-board Metrorail from startup to 6:30 a.m. Counter-flow use has not been investigated by MDTA staff.

4) Implement Bikes-on-Tri-Rail
(Transportation, Section C, #4)

Status:

TCRA has adopted a Bicycle Plan for Tri-Rail. No date for implementation has been set.

5) Investigate utility easements, transit and railroad rights-of-way to use for bicycle/pedestrian facilities.
(Transportation, Section C, #5)

Status:

The Bicycle Facilities Plan identifies several areas in the County for these facilities. A North-Dade Greenways Plan will delve further into this type of usage.

MEASURES COMPLETED

1) Adopt policy incorporating bicycle facilities into the County's plan for new road construction or reconstruction projects.
(Transportation, Section C, #1)

Status:

The Bicycle/Pedestrian Office submitted a proposed policy. Later, the Public Works Department developed their own version, which was subsequently adopted by the County.

NO ACTION

1) Adopt a shower facility ordinance for professional office buildings and require that all nonresidential and non-retail developments provide bicycle racks at a minimum rate of five bike parking spaces for every 100 automobile parking spaces as stated in the Draft Bicycle Facility Plan.
(Transportation, Section C, #2)

No action has been taken on this measure.

CODE COMPLIANCE

MEASURES IN PROGRESS

- 1) Develop outreach program for contractors/builders on Florida Energy Code**
(Electrical, Section B, #3)

Status:

The Department of Community Affairs has been contracted to hold seminars this year in order to properly educate contractors of the need of enforcing the energy code. Code Compliance will continue improving the program of awareness of the need to enforce the State Energy Code.

- 2) Develop strategy with Florida's Department of Community Affairs to improve enforcement of the Florida Energy Code**
(Electrical, Section B, #4)

Status:

The enforcement of the State Statute is left to the local authorities. The State's support on enforcement is minimal and practically non-existent. Code Compliance implemented an insulation inspection as part of the South Florida Building Code effective June 1995. This Inspection will ensure the proper installation of required insulation in buildings.